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# **Competition, Efficiency and Competition Policy in Tunisia**

Ben Jelili, Riadh

Arab Planning Institute

2007

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MPRA Paper No. 52223, posted 16 Dec 2013 16:49 UTC

# Competition and Efficiency in the Arab World



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Edited by **Khalid Sekkat**



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Edited by

Khalid Sekkat

*Professor of Economics, DULBEA-SBS, University of Brussels, Belgium*

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# 5

## Competition, Efficiency and Competition Policy in Tunisia

*Riadh Ben Jelili*

*Arab Planning Institute, Kuwait*

### 5.1 Introduction

Strange as it may seem, in the light of market-oriented reforms, which many MENA developing countries have been implementing over the last two decades, there are not many empirical studies on the topic of competition environment in this area of the world. There are a handful of comparative international studies for some developing countries in the region that provide data on variables such as three or four-firm concentration ratios. There also exist, for a few countries, more detailed studies usually in the standard structure–conduct–performance paradigm. In this respect, there have been some important recent contributions on competition policy by academic economists as well as policy makers. Lahouel and Maskus (1999) and Lahouel (2000) report on recent development in MENA competition policy in general and Tunisian experience in particular. More precisely, they assess the state of competition legislation and enforcement in some countries in the region and the relevance of some ideas being discussed concerning eventual international negotiations on competition within the WTO. More recently, Lahouel (2003) describes the legal framework of competition policy in Tunisia and reviews the workload and the experience that the competition council has accumulated both in its judiciary and advisory capacity. This chapter also contains an overall assessment of the performance of the council and highlights the main reforms needed to make its role more effective. However, to our knowledge, there is no empirical detailed evidence on manufacturing degree of competition within the sub-area constituted by the Maghreb countries.

In the absence of hard evidence, it is not surprising that there is considerable disagreement amongst economists speculating about the degree of competition in developing countries (Laffont, 1998, Porter, 1990).



This study aims at filling this gap by investigating the degree of competition in the Tunisian manufacturing sector. This sector plays an important role in the Tunisian economy. It contributes significantly to the Gross Domestic Product, employment, gross fixed capital formation, merchandise exports, and the use of advanced technologies. Accordingly, it has been called upon to play a key role in the transformation and development of the Tunisian economy since the launching of market oriented reforms.

The main purpose of this study is to assess the performance of the manufacturing sector and to examine the relationship between this performance, the competition environment and competition policy in Tunisia during the period 1972–2002. It is divided into four sections. Section 2 presents some general considerations regarding competition, trade in emerging economies and Tunisian background. The analysis presented in Section 3 attempts to explain the state of competition in Tunisian manufacturing sectors. It also presents results of the Survey on Competitive Environment of Firms in the Formal Manufacturing Sector. Section 4 examines the state of competition policy by addressing three aspects: competition policy provisions, competition policy implementation and a normative evaluation of the existing competition policy. Section 5 concludes.

## **5.2 General considerations and Tunisian background**

### **5.2.1 Competition, trade and emerging economies**

For almost half a century, the interface between trade and competition policies has received considerable attention from policy-makers, practitioners, and academics. The point of connection between these policies is that it is widely believed that free trade among nations does not only require the removal of public barriers to trade, as quotas and custom duties but also a series of obstacles originating in private restraints, such as abuse of dominance, import cartels, and vertical restraints. Competition policy would thus be a necessary complement to trade policy.

As part of good governance and institution building, an increasing number of developing and least developed countries have adopted competition policies at national level, as part of a coherent set of policies to create comparative advantage and internationally competitive industries.<sup>1</sup> For instance, 5 of the 12 Mediterranean Partners<sup>2</sup> have until now adopted a competition law and the development of such regimes remains a controversial matter.

Indeed, on the one hand, many authors argue that adoption of competition law regimes will be beneficial for emerging economies. First, it



is argued that the existence of a competition policy was a factor contributing to economic development. Michael Porter, for example, identifies a clear connection 'between domestic rivalry and the creation and persistence of competitive advantage in an industry' (Porter, 1990). A strong competition policy would thus be essential to the upgrading of an economy.

Secondly, it is argued that developing countries are particularly vulnerable to international cartels involving firms based in the developed world (Levenstein and Suslow, 2001). The vulnerability of such countries would be significantly linked to their inability to identify and prosecute such practices effectively. It is thus claimed by some that the best way for these countries to protect themselves against such practices is to adopt effective competition law regimes and institutions (Anderson and Holmes, 2002).

Thirdly, some authors argue that one of the benefits of creating effective competition law institutions in emerging economies is that such institutions could engage in competition support (Kovacic, 1997). For example, they could promote competition by making the case for removal of regulatory or other restrictions so as to allow entry in certain sectors of the economy, which have been traditionally secluded from competition.

On the other hand, arguments are sometimes raised that emerging economies do not need a competition law framework. First, it is sometimes argued that free trade would be by itself sufficient to protect the competitive process. It is certainly true that opening borders contributes to discipline firms, as imported products will compete with the local products. This argument, however, does not take into account the fact that there are non-tradable products and services, the providers of which will not be disciplined by import competition.

Fourthly, it is also sometimes argued that adoption of competition rules may be counterproductive in small economies. Application of such rules might, for instance, prevent some mergers necessary to help domestic players to gain the size necessary to be competitive on regional or international markets. However, this does not mean that no competition law should be adopted in such countries. It rather means that small economies need a competition policy that takes into account the specific market circumstances of these countries.

Finally, some observers make the argument that competition policy would be a luxury for rich countries and that developing and transition economies have other, more pressing priorities. It is true that adoption and implementation of a competition policy might not be the most pressing reform for a country that has engaged on the path of a market economy.



On the basis of the modern theory of industrial organisation, as well as the history of competition policy in developed countries, Singh and Dhumale (1999) suggested that development-friendly competition policies need to have different objectives from those normally posited for advanced economies. Further, such policies also need to be specific to the stage of a country's economic and industrial development as well as its institutional and governance capacities. This analysis suggested the following concepts to address the developmental dimensions of competition policy:

- the need to emphasise dynamic rather than static efficiency as the main purpose of competition policy from the perspective of economic development;
- the concept of optimal degree of competition (as opposed to maximum or perfect competition) to promote long term growth of productivity;
- the related concept of optimal combination of competition and co-operation to achieve fast long term economic growth;
- the critical significance of maintaining the private sector's propensity to invest at high levels and hence the need for a steady growth of profits; the latter in turn may necessitate government co-ordination of investment decisions so as to prevent over-capacity and falling profits;
- the concept of simulated competition, i.e. contests, for state support which can be as powerful as real market competition;
- the crucial importance of industrial policy to achieve the structural changes required for economic development; this in turn requires coherence between industrial and competition policies.

### **5.2.2 Tunisian background**

Significant structural changes in the Tunisian economy have taken place since the early 1970s. Between 1970 and 2002, the Tunisian economy grew at an average rate of 5 per cent, quite a reasonable rate by lower middle-income country and regional standards.

Agriculture's share of the GDP declined steadily from about 28 per cent in 1960 to 10 per cent in 2002.<sup>3</sup> At the same time, the manufacturing sector expanded very rapidly, increasing its portion of the gross domestic product from less than 8 per cent in 1960 to 19 per cent in 2002.

Tunisia is experiencing a relatively high degree of price stability with inflation levels well below 5 per cent since the second half of the 1990s (2.7 per cent in 2002) and a sustainable overall deficit, stood at 2 per cent of GDP in 2002. The Tunisian monetary policy framework has remained broadly unchanged in recent years, but a revision of the current strategy



has been ongoing. Targeting growth of broad money still represents the core of the monetary policy framework.

Regarding external situation, recent developments point to a further improvement of the trade and current account balance in 2003 on the back of a strong export performance. Greater exchange rate flexibility and the appreciation of the euro have led to depreciation of the dinar in real effective terms. This flexibility has contributed to improve Tunisia's competitiveness and to strengthen its external position despite weak demand from the EU. These combined evolutions appear to have reduced the current account deficit to 3.6 per cent of GDP and the trade deficit to 10 per cent of GDP in 2002.

In 2002, export and import transactions, together, account for about 94 per cent of the gross national product. Moreover, a high degree of diversification took place, enabling Tunisia to boost its export items from a few numbers of commodities in the early 1960s to a wide range of products in 2002. Indeed, the share of the first three commodities in the total exports of goods and services decreased significantly from 37 per cent in the early 1980s to less than 20 per cent in 2002.

Tunisia is a major exporter of consumer goods and a major importer of intermediate products which it processes into finished products for export. It is also dependent on the outside world for capital goods (27.9 per cent of total imports). Although energy is of relatively minor importance in Tunisia's foreign trade (9 per cent of imports and exports), the negative balance of trade in these products is highly sensitive to international price trends. The food balance is negative while imports of consumer goods are high (6.3 per cent of GDP in 2001, equivalent to 10.3 per cent of private consumption).

Tunisia is also the most advanced of the Euro-Med partners as far as the introduction of a free trade area with the European Union is concerned. It started dismantling tariffs in 1996, before the entry into force of the EU – Tunisia Association Agreement in 1998. Tariff dismantling has seen a speeding up of the country's integration into the European market.

The market for the product remains generally dominated by EU countries (80 per cent of the Tunisian trading in 2002), and particularly by three EU countries (France, Italy and Germany monopolize more than 60 per cent of the Tunisian trading). Consequently, Tunisia's business cycle has shown a weak link with business cycles in these EU trading partners.

In terms of regulatory framework, market forces determine most prices in the Tunisian economy, as stated in the relevant legal base (July 1991 Competition and Prices Act). According to the Ministry of Development and International Cooperation, the free interplay of supply and demand



determines approximately 87 per cent of prices at the production level and around 81 per cent at the distribution level. Nevertheless, administrative controls remain on many consumer products in particular and account for a large percentage of the typical basket of goods. The relevant legislation in the field of anti-trust is the Competition Law of 1991 (last amended in 2003) which takes its inspiration from French law.

In the area of technical regulations and standards for industrial products, the Tunisian system of standards operates on the basis of a clear conceptual distinction between approved standards (compulsory for all) and other standards (non-compulsory). The Ministry of Industry and Energy has overall responsibility for standardisation policy and supervision. Draft standards are prepared by technical committees under the auspices of the INNORPI, the national institute for standardisation and industrial property, which is a member of the International Standardisation Organisation (ISO).

Over the past three decades, the manufacturing sector has been comparatively dynamic, growing at an average real rate of 6 per cent since 1987. In 2002, manufacturing sector employed 21.3 per cent of the entire labour force and accounted for 87 per cent of total merchandise export earnings, making it the second nation's largest sector. However, this sector remains fairly small, particularly when compared to countries that have achieved fast economic growth.

The following observations can be made about general characteristics of the manufacturing sector in Tunisia:

- The structure of manufacturing output deviated from the concentration on consumer goods (food processing) to give more weight to textiles, clothing and leather goods, which belong to an export-oriented industry. Part of this shift resulted from a widespread concern in the late 1970s over limited demand in the domestic market. Also conducive circumstances in the world market at that time called for a shift in policies from producing for domestic markets to producing for export.
- The manufacturing activities that experienced the highest rates of growth (at constant prices) were those related to chemicals and rubber, construction materials and glass, woodwork, paper and diverse, and textiles, clothing and leather goods.
- In 2002, private firm contribution to manufacturing value added amounted to about 96 per cent.
- Apart from a few dozen enterprises that can be considered as large (employing more than 500 workers) and belonging mostly to the public sector and the financial sector, the majority of Tunisian firms



are very small private units. Out of about 87,000 formal sector firms in 1996, only 1,400 employ more than 100 workers. In the industrial sector, firms with fewer than 20 employees account for almost 60 per cent of all active private companies, and companies with fewer than 250 employees account for more than 94 per cent of all companies. In addition and for the same year, about 45 per cent of manufacturing enterprises have a sales volume below 0.5 million Tunisian Dinar (approximately US\$ 0.4 million), and 77 per cent below 2 million Tunisian Dinar (approximately US\$ 1.6).

The limited size of firms seems to be due to two main factors: family ownership and the highly protectionist policies that have lasted over more than three decades. Tunisian entrepreneurs have so far been very reticent to opening ownership outside family ties. Given limited financial resources, this attitude has restricted their choice of investment to small projects. The existence of high barriers to entry of imports has made many of such projects artificially profitable.

- Between other firm characteristics, the ownership structure and the legal status may be particularly relevant to evaluate economic performances. In terms of legal status, according to the Tunisian Industry Promotion Agency, in 2002, 57.8 per cent of manufacturing firms are limited liability companies (SARL in French) and 22.4 per cent are corporations (SA in French); 17.6 per cent are unincorporated, and 2.2 per cent of firms have another legal status (cooperative or SNC in French). Large firms are more likely to have a corporation status and small firms are more likely to be unincorporated.
- According to the Tunisian Industry Promotion Agency, in 2002, the total number of enterprises with foreign participation is 1654 (31.4 per cent of manufacturing firms having 10 or more employees), of this number more than half are totally foreign owned and 1370 (83 per cent) are totally exporting enterprises. Trade liberalization has placed additional pressures on industries pushing many manufacturing firms to open their capital to investors particularly in terms of partnership with foreign firms. A relatively important offshore sector was created through special incentives to counter the anti-export bias of its protected domestic economy in the 1970s and 1980s. While this policy stimulated the country's strong export performance and facilitated Tunisia's entry into export markets, it has not given the domestic private sector the stimulus to competitiveness that normally results from external trade and competition. The main reason is that the offshore sector has developed very few linkages with the onshore economy, and takes from it virtually no tradable inputs.



### 5.3 The state of competition in Tunisian manufacturing sector

#### 5.3.1 Manufacturing sector performance and sectoral contribution

We consider here the performance of the manufacturing sector over the period from 1984 until 2002. Output in the economy as a whole has undergone a sustained expansion since 1988 growing at an average rate of 4.3 per cent per annum. In the manufacturing sector, output growth has been generally faster than average over the period 1984–2002 (5.2 per cent growth rate in average per annum in the manufacturing sector versus 3.8 per cent for the overall GDP growth rate) and hence the share of the economy's output attributable to manufacturing has improved from 15.2 per cent of total output in the period 1984–87, to nearly 18 per cent in average in 1988–2002. Over the same period:

- contribution of the manufacturing sector to overall GDP growth rate increased significantly (26.3 per cent in average) compared to a contribution of 9.1 per cent in average in 1984–87,
- private sector share in the manufacturing value added increased notably from 70.4 per cent in 1988 to 96 per cent in 2002,
- the manufacturing sector accounts for around 15 per cent of the overall gross fixed capital formation never and the proportion of manufacturing investment undertaken by the private sector attains 86.3 per cent in average in 1996–2002,
- investment rate in the manufacturing sector shows a similar pattern of gradual improvement in 1988–1991 as in the overall economy (around 23 per cent in average), and a relative decline since 1992 (an average investment rate of 19.5 per cent). Since the mid 1990s the proportion of overall GDP accounted for by gross fixed capital formation never attains the average level of 27.7 per cent realized in 1984–7.

Over the observed period, the recorded level of employment in manufacturing has continuously increased, from 17.2 per cent in 1984 to 21.3 per cent in 2002. The manufacturing sector is actually the second largest employer, and the largest employer of full time workers.

Since 1995, the manufacturing employment share has increased more sharply than that in total GDP, reflecting the fact that trend rate of growth in manufacturing output per worker compares not favourably with that achieved for all the economy especially at the end of the observed period. This fact seems to be correlated to the relative decline in the accumulation rate and in the share of manufacturing stock of capital.

Table 5.1 Manufacturing employment and stock of capital trends

| Years | Manufacturing employment |                  | Manufacturing stock of capital<br>(volume MD) |                  |
|-------|--------------------------|------------------|---|------------------|
|       | Level (000s)             | Share of total % | Level   | Share of total % |
| 1984  | 311.5                    | 17.2             | 6935.8  | 19.4             |
| 1988  | 376.5                    | 18.5             | 7531.4  | 18.5             |
| 1989  | 390.5                    | 18.8             | 7439.2  | 18.2             |
| 1990  | 405.5                    | 19.1             | 7453.6  | 18.0             |
| 1991  | 416.5                    | 19.2             | 7470.5  | 17.6             |
| 1992  | 430.5                    | 19.4             | 7521.3  | 17.4             |
| 1993  | 445.5                    | 19.6             | 7586.8  | 17.0             |
| 1994  | 461.5                    | 19.8             | 7617.8  | 16.6             |
| 1995  | 477.5                    | 20.0             | 7645.7  | 16.1             |
| 1996  | 490.5                    | 20.1             | 7651.3  | 15.8             |
| 1997  | 506.5                    | 20.2             | 7635.2  | 15.4             |
| 1998  | 522.5                    | 20.4             | 7638.8  | 15.0             |
| 1999  | 540.7                    | 20.6             | 7705.8  | 14.6             |
| 2000  | 559.1                    | 20.8             | 7791.0  | 14.3             |
| 2001  | 579.5                    | 21.1             | 7846.3  | 13.9             |
| 2002  | 600.3                    | 21.3             | 7946.6  | 13.5             |

Source: Institut d'Economie Quantitative.

Table 5.2 Sectoral contributions to manufacturing, 1984–2002

|  | Contribution to value added |        |           | Contribution to real value added growth rate |        |           |
|--|-----------------------------|--------|-----------|--|--------|-----------|
|  | 1984–9                      | 1990–9 | 2000–2002 | 1984–9                                       | 1990–9 | 2000–2002 |
| Food processing                            | 25.0                        | 18.9   | 17.5      | 7.0  | 8.0    | 4.8       |
| Building materials                         | 12.1                        | 10.6   | 9.2       | 12.3   | 8.0    | 12.8      |
| Mechanical, metal, Electrical, electronics | 14.9                        | 13.7   | 14.6      | 13.0   | 12.8   | 23.6      |
| Chemical industries                        | 9.0                         | 10.2   | 10.7      | 24.4   | 12.7   | 9.8       |
| Textiles, clothing                         | 25.7                        | 33.7   | 35.4      | 27.2   | 42.7   | 31.7      |
| Leather and shoes                          |                             |        |           |  |        |           |
| Diverse industries                         | 13.2                        | 12.9   | 12.6      | 16.1   | 15.9   | 17.3      |
| All  | 100                         | 100    | 100       | 100  | 100    | 100       |

Source: Institut National de la Statistique.



The effective rate of protection (ERP) seeks to capture in a single figure support to productive factors resulting from a complex tariff structure. By including the price-distorting effects on intermediate inputs as well as on output, ERP of industry provides a measure of the net effect of border policies. It evaluates the increase in industry's value added per unit of output under protection as a percentage of the free trade value added per unit and constitutes a useful summary indicator of the manufacturing sector's exposure to international competition.

Since 1977 Tunisia has benefited from a cooperation agreement with the EU that granted Tunisian manufactured exports duty-free access to EU markets. The 1995 Association Agreement with the EU established reciprocal treatment by granting EU manufactured exports, which represent three quarters of Tunisia's imports from the EU, duty-free access to Tunisian markets after a 12-year adjustment period. The schedule for the removal of tariffs on manufactures is:

- Immediately: For primary materials and equipment not made in Tunisia, representing 12 per cent of manufactured imports from the EU. This stage is fully implemented.
- Gradually over 5 years, one-fifth per year: For finished products not made locally and certain materials, representing 28 per cent of manufactured imports from the EU. This stage is also fully implemented.
- Over 12 years, one-twelfth per year: For products produced locally that are capable of competing, representing 30 per cent of manufactured imports from the EU. The implementation of this stage is in progress.
- Four-year delay, one-eighth per year thereafter: For products made locally for which the enterprises need restructuring, representing the remaining 30 per cent of manufactured imports from the EU. Implementation of this stage has started in 2000.

ERP witnessed a rapid decline, during 1986–90, by 26 points. It increased, particularly during 1990–7. It is worth noting that this was not due to a more protectionist policy, but rather to Tunisia's adhesion to GATT in 1989, and consequently to its commitments to transform all forms of non-tariff protection into tariff equivalent.

Currently in its ninth year of implementation, the agreement has resulted in a temporary but sizable increase in effective protection for most manufacturing enterprises producing for the domestic market, as a result of the full implementation of the first two measures above. The completion of the implementation of the third measure and, most important, the implementation of the last measure will gradually lead to a very

large reduction in effective protection for enterprises producing for the domestic market, which is effectively observed since 2000.

Consider now the composition of activities making up the manufacturing sector. In terms of value added, the food processing and textile, clothing, leather and shoes sectors predominate, accounting jointly for more than half of manufacturing value added. Clothing, leather and shoes sector makes significant contributions to manufacturing real value added growth rate, particularly during the 1990s. Moreover, this sector contributes to more than 50 per cent to manufacturing employment.

The manufacturing sector as a whole accounts for more than 86 per cent of goods exports in Tunisia. The importance of exporting varies across sub-sectors. At the end of the period 1984–2002, the majority of manufacturing exports were from the textiles, clothing, leather and shoes sector, which contributes to 54 per cent to manufacturing exports and exports 71 per cent of its output.

Table 5.3 Sectoral contributions to export, 1984–2002

|  | 1984–9 | 1990–9 | 2000–2002 |
|--|--------|--------|-----------|
| Food processing                            | 11.4   | 9.8    | 6.9       |
| Building materials                         | 1.9    | 2.2    | 1.6       |
| Mechanical, metal, electrical, electronics | 11.9   | 15.4   | 22.3      |
| Chemical industries                        | 28.1   | 14.7   | 11.7      |
| Textiles, clothing leather and shoes       | 41.5   | 52.4   | 54.0      |
| Diverse industries                         | 5.2    | 5.5    | 3.5       |
| All  | 100    | 100    | 100       |

Source: Institut National de la Statistique.

Table 5.4 Share of gross output exported, 1984–2002

|  | 1984–9 | 1990–9 | 2000–2002 |
|--|--------|--------|-----------|
| Food processing                            | 11.4   | 9.8    | 6.9       |
| Building materials                         | 1.9    | 2.2    | 1.6       |
| Mechanical, metal, electrical, electronics | 11.9   | 15.4   | 22.3      |
| Chemical industries                        | 28.1   | 14.7   | 11.7      |
| Textiles, clothing leather and shoes       | 41.5   | 52.4   | 54.0      |
| Diverse industries                         | 5.2    | 5.5    | 3.5       |
| All  | 100    | 100    | 100       |

Source: Institut National de la Statistique.



### 5.3.2 Trade performance and Import penetration

Net trade performance (NTP) is a useful measure in terms of summarising the key features of the trade data. NTP combines export and import flows for an industry into an index as follows:  $(X - M)/(X + M)$ . So, NTP will be +1 for an industry which exports but has no imports, and -1 for an importer with no exports. Between these limits the index is a convenient measure of the trade balance of each industry. The changes between 1983–1989 and 2000–2002 are shown in Table 5.5.

The cells of Table 5.5 contain the number of manufacturing industries classified in terms of their mean NTP values in 1983–89 (rows) and 2000–2002 (columns). The main diagonal Table 5.5 shows the number of industries, 46 in all, which were in the same NTP range in 1983–89 and 2000–2002. In this mercantilist framework, trade performance has improved over the decade. A total of 26 industries (below the diagonal) improved their net trade performance over the period and only 3 industries (above the diagonal) experienced a decline. In 2002, 32 industries had positive trade balances, compared with 16 in 1983.

The industries that have done best (NTP superior to +0.5) over the period 1983–2002 include: pasta and couscous, olive oil, canned vegetables and fruits, canned fish, wine, fertilizers, carpet, apparel, others leather and plastic products and footwear.

If we consider the rate of import penetration as a measure of competitiveness on the domestic market,<sup>4</sup> data reveal a very high import penetration mainly in Mechanical, Metal, Electrical and Electronics sector, Chemical industries and Textiles, Clothing Leather and Shoes: boats and repairing (103 per cent in average over the period 1983–2002); electronic professional equipment (98 per cent); base chemical products (95 per cent); spare parts for cars (88 per cent); metal and semi-products non ferrous (86 per cent); metallic household appliances (79 per cent); pharmaceutical products (77 per cent) and underwear (71 per cent) (Table 5.6).

Table 5.5 Net trade performance of Tunisian manufacturing, 1983–2002

| NTP 1983–9   | NTP 2000–2002 |              |           |             | Total |
|--------------|---------------|--------------|-----------|-------------|-------|
|              | +1 to 0.51    | +0.5 to 0.01 | 0 to -0.5 | -0.51 to -1 |       |
| +1 to 0.51   | 12            | 0            | 0         | 0           | 12    |
| +0.5 to 0.01 | 0             | 4            | 1         | 0           | 5     |
| 0 to -0.5    | 4             | 4            | 5         | 2           | 15    |
| -0.51 to -1  | 3             | 5            | 10        | 25          | 43    |
| Total        | 19            | 13           | 16        | 27          | 75    |

Table 5.6 Import penetration in Tunisian manufacturing industries (%)

| NAT Code | Industry                              | 1983     | 1990     | 2001     |
|----------|---------------------------------------|----------|----------|----------|
| 111      | Meat industries                       | 5.9881   | 5.2618   | 0.0323   |
| 121      | Milk industry                         | 32.4498  | 21.3905  | 8.3191   |
| 131      | Grain milling                         | 2.1774   | 0.8133   | 4.2388   |
| 132      | Pasta and couscous                    | 0.0197   | 0.1220   | 0.1144   |
| 133      | Bread and pastries                    | 0.0986   | 0.0377   | 0.0180   |
| 134      | Biscuits                              | 0.1530   | 0.1031   | 3.2823   |
| 141      | Olive oil                             | 0.0000   | 0.0000   | -2.2088  |
| 142      | Oils and fats processing              | 54.2533  | 55.6402  | 49.5574  |
| 151      | Canned vegetables and fruits          | 10.1309  | 1.7761   | 0.0858   |
| 152      | Canned fish                           | 5.7928   | 48.8105  | 6.7756   |
| 153      | Other conserving process              | 23.6518  | 0.4373   | 0.0401   |
| 161      | Sugar industry                        | 68.6073  | 71.3558  | 68.1066  |
| 162      | Chocolate and confectioners products  | 1.5080   | 1.5442   | 5.8309   |
| 171      | Miscellaneous food industries         | 24.8817  | 25.4192  | 26.2311  |
| 172      | Animal feed                           | 1.1893   | 2.3417   | 1.4656   |
| 181      | Non alcoholic beverages               | 0.5534   | 0.2591   | 5.1457   |
| 182      | Wine                                  | 1.3883   | 0.8273   | 0.9807   |
| 183      | Beer                                  | 0.0166   | 0.5044   | 0.1804   |
| 184      | Distilled alcoholic beverages         | 43.0934  | 55.9709  | 29.1156  |
| 191      | Tobacco                               | 4.2879   | 9.0558   | 6.7136   |
| 211      | Quarry products                       | 29.0153  | 32.8400  | 25.1811  |
| 212      | Stone and marble polished             | 21.1764  | 13.7978  | 9.7332   |
| 221      | Cement and plaster                    | 13.7090  | 0.5953   | 4.5682   |
| 222      | Cement based products                 | 3.3666   | 0.0308   | 0.3734   |
| 231      | Brick industry                        | 7.7381   | 7.3106   | 5.8291   |
| 232      | Tile industry                         | 31.8287  | 26.0830  | 20.4026  |
| 241      | Glass industry                        | 47.9873  | 45.9759  | 27.2131  |
| 311      | Iron and steel                        | 52.6769  | 51.2008  | 39.8021  |
| 312      | Metal and semi-products non-ferrous   | 74.2193  | 87.2495  | 92.4813  |
| 313      | Foundries                             | 65.3813  | 34.3292  | 63.8759  |
| 321      | Forge products                        | 12.7143  | 13.3520  | 11.7175  |
| 322      | Metallic construction and boilerworks | 26.1360  | 16.5885  | 8.6811   |
| 323      | Metallic packaging                    | 4.4025   | 1.9401   | 2.5681   |
| 324      | Quincaillerie                         | 64.1265  | 60.1656  | 0.0639   |
| 325      | Metallic household appliances         | 72.6862  | 55.3761  | 70.4427  |
| 331      | Agricultural machinery                | 101.7717 | 75.5278  | 18.9476  |
| 332      | Industrial machinery                  | 98.2186  | 98.6860  | 0.1895   |
| 341      | Spare parts for cars                  | 97.3547  | 91.5929  | 105.5700 |
| 342      | Cars and trucks                       | 66.6523  | 70.5165  | 98.0976  |
| 343      | Bike and motor bikes                  | 55.4782  | 41.3544  | 29.1222  |
| 351      | Boats and repairing                   | 58.3143  | 338.9233 | 88.4055  |

(Continued)



Table 5.6 (Continued)

| NAT Code | Industry                              | 1983    | 1990     | 2001     |
|----------|---------------------------------------|---------|----------|----------|
| 361      | Electrical equipment                  | 55.1861 | 88.1280  | 57.9665  |
| 362      | Miscellaneous electrical<br>Equipment | 76.5017 | 71.6777  | 54.1853  |
| 371      | Electronic professional<br>equipment  | 98.0927 | 93.9140  | 108.0031 |
| 372      | Electronic home appliances            | 31.0803 | 29.2917  | 9.1210   |
| 381      | Home appliances equipment             | 38.6854 | 29.1946  | 30.7932  |
| 411      | Fertilizers                           | 2.0589  | 0.4190   | 0.9584   |
| 412      | Diverse fertilizers                   | 71.1725 | 8.1256   | 4.3344   |
| 421      | Acide fluorhydrique, cryolithe        | -3.9634 | -29.7884 | -0.4775  |
| 422      | Base chemical products                | 95.8521 | 94.8386  | 97.2074  |
| 431      | Paint, ink, glue and colorants        | 39.2631 | 36.3529  | 46.5754  |
| 432      | Soap, detergents and<br>disinfectants | 11.9969 | 9.5493   | 21.9716  |
| 433      | Perfumes and toiletry                 | 38.6949 | 25.4869  | 34.0924  |
| 434      | Miscellaneous para-chemicals          | 79.4496 | 69.7413  | 67.6187  |
| 441      | Pharmaceutical products               | 88.0233 | 83.0329  | 63.1759  |
| 451      | Tires and rubber products             | 67.6128 | 44.5252  | 44.9025  |
| 511      | Textile spinning                      | 58.2768 | 61.2751  | 56.7695  |
| 512      | Textile weaving                       | 56.6276 | 70.7572  | 76.3704  |
| 513      | Other textiles                        | 60.8919 | 71.6056  | 67.5050  |
| 521      | Carpet                                | 2.7354  | 0.4912   | 0.8840   |
| 531      | Underwear                             | 57.7170 | 62.9345  | 127.1191 |
| 541      | Apparel                               | 24.0233 | 46.4388  | 55.8500  |
| 551      | Leather and skin work                 | 69.3551 | 62.1682  | 23.2969  |
| 552      | Other leather and plastic<br>products | 25.0509 | 27.7630  | 32.6021  |
| 553      | Footwear                              | 8.0968  | 11.2353  | 23.2969  |
| 611      | Wood products                         | 72.9477 | 66.9862  | 60.4586  |
| 612      | Building carpentry                    | 0.1378  | 0.0227   | 0.3936   |
| 613      | Bedding furniture                     | 6.2533  | 1.7867   | 3.6554   |
| 621      | Paper pulp and cardboard              | 61.0870 | 59.4204  | 64.1760  |
| 622      | Packaging                             | 6.8715  | 13.3505  | 16.7266  |
| 623      | Paper-making                          | 19.6729 | 7.3198   | 12.6310  |
| 624      | Printing works                        | 51.7370 | 36.3654  | 21.0562  |
| 631      | Plastic products                      | 41.2822 | 33.6461  | 41.2437  |
| 641      | Miscellaneous products                | 49.1612 | 47.9740  | 34.4280  |

Source: Institut National de la Statistique.

Over the period 1983–2002, ‘textiles, clothing leather and shoes’ had the highest exposure to international competition<sup>5</sup> with an average index value of 81.6 per cent, followed by the ‘mechanical, metal, electrical and electronics’ sector with an index value of 74.3 per cent, and the ‘Chemical Industries’ with an index value of 64.7 per cent (Table 5.7).

Table 5.7 Tunisian manufacturing sector exposure to international competition

| NAT Code | Industry                              | 1983    | 1990    | 2002    |
|----------|---------------------------------------|---------|---------|---------|
| 111      | Meat industries                       | 6.0855  | 5.3315  | 0.2019  |
| 121      | Milk industry                         | 32.4603 | 21.4030 | 10.3909 |
| 131      | Grain milling                         | 5.4896  | 6.4447  | 7.5846  |
| 132      | Pasta and couscous                    | 0.0427  | 0.5708  | 19.4253 |
| 133      | Bread and pastries                    | 0.0986  | 0.1753  | 0.2004  |
| 134      | Biscuits                              | 0.1530  | 3.1190  | 9.0436  |
| 141      | Olive oil                             | 72.4673 | 51.6568 | 86.3342 |
| 142      | Oils and fats processing              | 54.2533 | 55.6806 | 77.2419 |
| 151      | Canned vegetables and fruits          | 23.1396 | 10.0468 | 25.2364 |
| 152      | Canned fish                           | 53.3817 | 99.1808 | 56.5148 |
| 153      | Other conserving process              | 23.6518 | 10.1700 | 0.0000  |
| 161      | Sugar industry                        | 69.0604 | 72.9333 | 71.5611 |
| 162      | Chocolate and confectioners products  | 1.8822  | 4.9091  | 10.7641 |
| 171      | Miscellaneous food industries         | 29.0499 | 36.9483 | 31.7801 |
| 172      | Animal feed                           | 1.1893  | 2.3554  | 3.7718  |
| 181      | Non alcoholic beverages               | 0.6877  | 1.1131  | 11.0670 |
| 182      | Wine                                  | 30.5405 | 11.5602 | 13.3725 |
| 183      | Beer                                  | 0.2983  | 0.8436  | 0.5278  |
| 184      | Distilled alcoholic beverages         | 45.2215 | 82.9195 | 49.0344 |
| 191      | Tobacco                               | 4.5298  | 16.3448 | 13.0666 |
| 211      | Quarry products                       | 29.2297 | 34.4285 | 30.4268 |
| 212      | Stone and marble polished             | 21.3933 | 16.3953 | 30.5496 |
| 221      | Cement and plaster                    | 13.7090 | 20.7193 | 7.3776  |
| 222      | Cement based products                 | 3.3666  | 2.8591  | 1.9722  |
| 231      | Brick industry                        | 9.8472  | 9.1815  | 6.0882  |
| 232      | Tile industry                         | 42.1261 | 52.6729 | 38.8019 |
| 241      | Glass industry                        | 48.2630 | 54.0387 | 31.9082 |
| 311      | Iron and Steel                        | 53.2330 | 57.5201 | 36.5321 |
| 312      | Metal and semi-products non-ferrous   | 82.7870 | 95.0718 | 99.7493 |
| 313      | Foundries                             | 65.6558 | 35.3043 | 73.2800 |
| 321      | Forge Products                        | 12.7528 | 14.3389 | 10.7805 |
| 322      | Metallic construction and boilerworks | 28.6658 | 18.6071 | 10.8438 |
| 323      | Metallic packaging                    | 5.8502  | 4.0199  | 2.6246  |
| 324      | Quincaillerie                         | 66.5369 | 77.4206 | 3.0838  |
| 325      | Metallic household appliances         | 76.1683 | 64.4980 | 78.0087 |
| 331      | Agricultural machinery                | 98.7401 | 78.0059 | 43.9790 |
| 332      | Industrial machinery                  | 99.0795 | 99.7933 | 6.0652  |
| 341      | Spare parts for cars                  | 99.2256 | 97.6791 | 97.1042 |
| 342      | Cars and trucks                       | 68.5935 | 74.4662 | 97.9228 |
| 343      | Bike and motor bikes                  | 55.4782 | 43.8639 | 32.5114 |
| 351      | Boats and repairing                   | 67.6322 | -8.7962 | 82.5132 |

(Continued)



Table 5.7 (Continued)

| NAT Code | Industry                           | 1983     | 1990     | 2002     |
|----------|------------------------------------|----------|----------|----------|
| 361      | Electrical equipment               | 66.4758  | 98.7924  | 61.3165  |
| 362      | Miscellaneous electrical equipment | 89.3227  | 87.8627  | 71.9288  |
| 371      | Electronic professional equipment  | 99.3357  | 98.2749  | 97.0139  |
| 372      | Electronic home appliances         | 34.6226  | 46.2813  | 19.6820  |
| 381      | Home appliances equipment          | 39.0251  | 30.9269  | 36.1669  |
| 411      | Fertilizers                        | 45.0614  | 37.5323  | 47.3765  |
| 412      | Diverse fertilizers                | 98.4980  | 86.8660  | 38.2616  |
| 421      | Acide fluorhydrique, cryolithe     | 108.6374 | 112.2861 | 142.6513 |
| 422      | Base chemical products             | 97.4483  | 98.0037  | 99.0721  |
| 431      | Paint, ink, glue and colorants     | 42.8203  | 40.1385  | 56.0089  |
| 432      | Soap, detergents and disinfectants | 12.8612  | 12.3316  | 36.2253  |
| 433      | Perfumes and toiletry              | 58.6017  | 46.3581  | 61.5196  |
| 434      | Miscellaneous para-chemicals       | 81.7367  | 71.9512  | 75.9771  |
| 441      | Pharmaceutical products            | 90.0166  | 85.9985  | 62.8111  |
| 451      | Tires and rubber products          | 68.6365  | 55.8816  | 60.6516  |
| 511      | Textile spinning                   | 58.5861  | 63.1288  | 60.5845  |
| 512      | Textile weaving                    | 62.7754  | 77.8579  | 83.5353  |
| 513      | Other textiles                     | 71.6624  | 83.4281  | 83.8333  |
| 521      | Carpet                             | 25.5645  | 19.0199  | 4.9733   |
| 531      | Underwear                          | 86.7737  | 92.2780  | 95.2542  |
| 541      | Apparel                            | 71.9542  | 92.2054  | 94.9949  |
| 551      | Leather and skin work              | 79.2921  | 69.5585  | 75.4021  |
| 552      | Other leather and plastic products | 62.1815  | 67.5931  | 82.6324  |
| 553      | Footwear                           | 30.2729  | 47.3824  | 75.4021  |
| 611      | Wood products                      | 76.8723  | 70.5663  | 62.6386  |
| 612      | Building carpentry                 | 0.4599   | 0.1454   | 2.1158   |
| 613      | Bedding furniture                  | 6.3050   | 4.5890   | 12.7071  |
| 621      | Paper pulp and cardboard           | 73.0482  | 66.5071  | 78.2398  |
| 622      | Packaging                          | 13.1159  | 20.0442  | 27.2657  |
| 623      | Paper-making                       | 28.5694  | 15.0624  | 60.0816  |
| 624      | Printing works                     | 57.3065  | 40.5043  | 29.7236  |
| 631      | Plastic products                   | 45.5404  | 40.1446  | 54.2274  |
| 641      | Miscellaneous products             | 66.6404  | 66.9545  | 42.0830  |

Source: Institut National de la Statistique.

### 5.3.3 Specialization

The data used to evaluate specialization degree in Tunisian manufacturing sector are drawn from the UNIDO Industrial Statistics Database 2003. While the data base exists both at the 3-digit and 4-digit level of the International

Table 5.8 Gini coefficient

| <i>Year</i> | <i>Value added</i> | <i>Employment</i> |
|-------------|--------------------|-------------------|
| 1972        | 0.5157             | 0.5478            |
| 1973        | 0.5071             | 0.5519            |
| 1974        | 0.5397             | 0.5478            |
| 1975        | 0.5016             | 0.5634            |
| 1976        | 0.5141             | 0.5615            |
| 1977        | 0.5146             | 0.5547            |
| 1978        | 0.4987             | 0.5421            |
| 1979        | 0.5192             | 0.5670            |
| 1980        | 0.5332             | 0.5667            |
| 1981        | 0.5455             | 0.5849            |
| 1989        | 0.6380             | –                 |
| 1990        | 0.6317             | –                 |
| 1991        | 0.6192             | –                 |
| 1992        | 0.6155             | –                 |
| 1993        | 0.5922             | 0.5116            |
| 1994        | 0.5840             | 0.4978            |
| 1995        | 0.5772             | 0.5007            |
| 1996        | 0.5840             | 0.6200            |
| 1997        | 0.5865             | 0.6214            |
| 1998        | 0.5844             | 0.6097            |
| 1999        | 0.5828             | 0.6097            |
| 2000        | 0.5849             | 0.6159            |

*Source:* authors' calculations from UNIDO, 2003 CD.

Standard Industrial Classification (ISIC), only the former was used, since the coverage of the latter is much more limited in term of time span.

Table 5.8 reports Gini coefficient as a measure of the degree of inequality in the distribution of the value added and employment in Tunisian manufacturing sector.

Over the period 1972–2000, the measure of the degree of inequality in the distribution of the value added (employment) varied between 50 per cent (50 per cent) and 64 per cent (62 per cent). It decreased during the 1970s, increased from 1980, and stabilized around 58 per cent in 1990s. In terms of employment distribution, the end of the period is characterized by a significant increase of the inequality (around 61 per cent).

#### 5.3.4 Firms' size distribution and market concentration

The prevalence of small plants is highlighted in Tables 5.9 and 5.10. In the manufacturing sector, firms with fewer than 50 employees account for 51 per cent of all active firms, and companies with fewer than 200 employees account for 89 per cent of all companies.



Table 5.9 Size distribution of the Tunisian manufacturing firms, 2000 (2 digits classification)

|  | <10 | 10; 50 | 50; 100 | 100; 200 | 200; 300 | 300; 400 | 400; 500 | + 500 | Total |
|--|-----|--------|---------|----------|----------|----------|----------|-------|-------|
| Food processing                            | 58  | 93     | 36      | 26       | 9        | 5        | 1        | 6     | 234   |
| Building materials                         | 28  | 142    | 37      | 31       | 10       | 5        | 2        | 8     | 263   |
| Mechanical, metal, electrical, electronics | 10  | 51     | 13      | 18       | 4        | 5        | 1        | 5     | 107   |
| Chemical Industries                        | 18  | 76     | 28      | 17       | 5        | 0        | 0        | 1     | 145   |
| Textiles, clothing leather and shoes       | 37  | 154    | 166     | 147      | 52       | 17       | 11       | 15    | 599   |
| Wood products and diverse Industries       | 23  | 90     | 29      | 19       | 4        | 2        | 3        | 1     | 171   |
| Manufacturing sectors                      | 174 | 606    | 309     | 258      | 84       | 34       | 18       | 36    | 1519  |

Source: Répertoire des entreprises manufacturières, INS, 2000.

Table 5.10 Size distribution of the Tunisian manufacturing firms, 2000 (3 digits classification)

| Sector 3<br>digit NAT | Sector   | <10 | 10; 50 | 50; 100 | 100; 200 | 200; 300 | 300; 400 | 400; 500 | + 500 | Total |
|-----------------------|--|-----|--------|---------|----------|----------|----------|----------|-------|-------|
| 152                   | Canned fish  | 1   | 4      | 5       | 3        | 1        | 1        |          |       | 15    |
| 153                   | Canned vegetables and<br>fruits  |     | 4      | 5       | 6        | 2        | 1        | 1        |       | 19    |
| 154                   | Olive oil, oils and fats<br>processing                                 | 5   | 4      | 2       | 2        |          |          |          |       | 13    |
| 155                   | Milk industry  | 2   | 2      | 1       | 2        |          | 1        |          | 1     | 9     |
| 156                   | Grain milling  | 1   | 2      | 2       | 8        |          |          |          |       | 13    |
| 157                   | Animal feed  | 1   | 12     |         |          | 1        |          |          |       | 14    |
| 158                   | Bread and pastries, sugar<br>industry, biscuits, pasta<br>and couscous | 45  | 61     | 13      | 4        | 3        | 1        |          | 2     | 129   |
| 159                   | Distilled alcoholic<br>beverages, beer and wine                        | 3   | 4      | 7       | 1        | 2        | 1        |          | 1     | 19    |
| 160                   | Tobacco  |     |        | 1       |          |          |          |          | 2     | 3     |
| 141                   | Quarry products  |     | 7      | 2       | 1        |          |          |          |       | 10    |
| 142                   | Quarry products  | 4   | 6      | 2       |          |          |          |          |       | 12    |
| 143                   | Quarry products<br>(phosphate)   |     |        |         |          |          |          |          | 1     | 1     |
| 145                   | Building materials   |     |        | 1       |          |          |          |          |       | 1     |
| 261                   | Glass industry   | 1   | 9      | 4       | 2        |          |          |          |       | 16    |
| 262                   | Tile industry  | 1   | 1      | 2       | 1        | 3        | 1        | 1        |       | 10    |
| 263                   | Tile industry others   |     | 8      | 4       | 2        | 2        |          |          |       | 16    |
| 264                   | Brick industry   | 1   | 27     | 7       | 5        | 2        | 2        |          | 1     | 45    |
| 265                   | Cement based<br>Products   | 3   |        |         | 2        | 1        | 1        |          | 2     | 9     |
| 266                   |  | 2   | 9      | 4       | 4        |          | 1        |          |       | 20    |

(Continued)



Table 5.10 (Continued)

| Sector 3<br>digit NAT | Sector                                   | <10 | 10; 50 | 50; 100 | 100; 200 | 200; 300 | 300; 400 | 400; 500 | +500 | Total |
|-----------------------|--|-----|--------|---------|----------|----------|----------|----------|------|-------|
| 267                   | Stone and marble, polished               | 1   | 17     | 2       | 2        |          |          |          |      | 22    |
| 271                   | Iron and steel                           | 1   | 1      |         |          |          |          |          | 1    | 3     |
| 275                   | Foundries                                | 2   | 3      | 1       | 1        |          |          |          | 1    | 8     |
| 281                   | Metallic construction<br>and boilerworks | 1   | 12     | 2       | 3        | 1        |          | 1        | 1    | 21    |
| 285                   | Metal packaging                          | 6   | 8      | 1       |          |          |          |          |      | 15    |
| 286                   | Metallic household<br>appliances         | 1   | 12     | 1       | 2        | 1        |          |          |      | 17    |
| 287                   | Metallic packaging                       | 4   | 22     | 4       | 6        |          |          |          |      | 37    |
| 291                   | Miscellaneous electrical<br>equipment    |     | 5      |         | 2        |          |          |          | 1    | 7     |
| 293                   | Agricultural machinery                   | 1   | 5      |         | 1        | 1        |          |          |      | 8     |
| 294                   | Industrial machinery                     |     | 1      |         |          |          |          |          |      | 1     |
| 295                   | Industrial machinery                     | 2   | 3      | 1       |          |          |          |          |      | 6     |
| 297                   | Home appliances equipment                |     | 1      |         |          |          |          |          |      | 1     |
| 311                   | Electronic professional<br>equipment     |     | 3      | 1       |          | 1        |          |          |      | 5     |
| 312                   | Electronic professional<br>equipment     | 1   | 8      | 1       | 2        |          | 1        |          |      | 13    |
| 313                   | Miscellaneous electrical<br>equipment    |     | 1      | 1       | 4        |          | 2        |          | 1    | 9     |
| 314                   | Miscellaneous electrical<br>equipment    | 1   |        |         | 2        | 1        |          |          |      | 4     |
| 315                   | Miscellaneous electrical<br>equipment    |     |        | 2       |          |          |          |          |      | 2     |

|     |   |   |    |  |  |    |   |   |   |   |    |
|-----|---|---|----|--|--|----|---|---|---|---|----|
| 316 | Spare parts for cars  | 4 | 3  |  |  | 2  | 1 |   |   | 2 | 12 |
| 321 | Electronic components                                       |   | 1  |  |  | 1  |   |   |   |   | 4  |
| 323 | Electronic professional equipment                           |   | 1  |  |  |    |   | 1 |   | 1 | 4  |
| 331 | Electronic professional equipment (medical)                 |   | 1  |  |  | 1  |   |   |   |   | 2  |
| 341 | Cars  |   | 1  |  |  |    |   |   |   | 1 | 2  |
| 343 | Cars and spare parts for cars                               |   | 11 |  |  | 4  |   |   |   |   | 18 |
| 351 | Boats and repairing   |   | 3  |  |  |    |   | 1 |   |   | 4  |
| 354 | Bike and motor bikes  | 1 | 3  |  |  |    |   |   |   |   | 5  |
| 241 | Fertilizers, diverse fertilizers and base chemical Products | 3 | 7  |  |  | 1  |   | 1 |   |   | 13 |
| 243 | Colorants, peintures, encres et colles                      | 2 | 6  |  |  | 3  |   |   |   |   | 13 |
| 244 | Pharmaceutical products                                     | 1 | 4  |  |  | 1  |   | 1 |   |   | 9  |
| 245 | Soap, detergents and disinfectants                          | 8 | 18 |  |  | 6  |   | 1 |   |   | 37 |
| 246 | Paint, ink, glue and colorants                              |   | 8  |  |  | 3  |   |   |   |   | 11 |
| 251 | Tyres and rubber products                                   |   | 2  |  |  | 2  |   |   |   | 1 | 6  |
| 252 | Tyres and rubber products                                   | 4 | 31 |  |  | 12 |   | 2 |   |   | 56 |
| 171 | Textile spinning  | 4 | 9  |  |  | 5  |   |   |   |   | 19 |
| 172 | Textile spinning  | 4 | 2  |  |  | 7  |   | 2 |   |   | 40 |
| 173 | Others textile spinning                                     | 2 | 7  |  |  | 6  |   |   |   |   | 17 |
| 174 | Other textiles  |   | 8  |  |  | 3  |   |   | 1 |   | 14 |
| 175 | Carpet  | 3 | 14 |  |  | 6  |   |   | 1 |   | 27 |
| 176 | Other textiles  |   | 1  |  |  |    |   |   |   |   | 1  |
| 177 | Apparel and underwear                                       | 2 | 6  |  |  | 5  |   |   |   |   | 18 |
| 181 | Leather apparel, professional apparel                       |   |    |  |  | 2  |   |   |   |   | 3  |

(Continued)



Table 5.10 (Continued)

| Sector 3<br>digit NAT | Sector                                | <10 | 10; 50 | 50; 100 | 100; 200 | 200; 300 | 300; 400 | 400; 500 | + 500 | Total |
|-----------------------|---------------------------------------|-----|--------|---------|----------|----------|----------|----------|-------|-------|
| 182                   | Leather apparel, professional apparel | 11  | 57     | 18      | 117      | 43       | 16       | 8        | 11    | 371   |
| 183                   | Leather apparel, professional apparel |     | 1      |         |          | 1        |          |          |       | 2     |
| 191                   | Leather and skin work                 |     | 4      | 2       |          |          |          |          |       | 6     |
| 192                   | Other leather and plastic products    | 3   | 7      | 3       | 3        | 2        |          |          |       | 18    |
| 193                   | Footwear                              | 8   | 2      | 19      | 8        | 4        | 1        | 1        | 2     | 63    |
| 201                   | Wood products and building carpentry  |     | 2      |         |          |          |          |          |       | 2     |
| 202                   | Wood products and building carpentry  |     |        | 3       | 1        |          |          |          |       | 4     |
| 203                   | Wood products and building carpentry  | 3   | 8      | 1       |          |          |          |          |       | 12    |
| 205                   | Wood products and building carpentry  | 3   | 1      | 1       |          |          |          |          |       | 5     |
| 211                   | Printing works, packaging             | 1   | 2      | 1       | 2        |          |          |          | 1     | 7     |
| 212                   | Printing works, packaging             | 2   | 11     | 5       | 2        |          | 1        |          |       | 21    |
| 221                   | Printing works, packaging             | 2   | 2      | 1       | 2        | 1        |          | 1        |       | 9     |
| 222                   | Printing works, packaging             | 6   | 18     | 7       | 1        |          |          | 1        |       | 33    |
| 223                   | Printing works, packaging             |     | 2      |         |          |          |          |          |       | 2     |
| 361                   | Miscellaneous products                | 5   | 38     | 9       | 11       | 2        | 1        | 1        |       | 67    |
| 365                   | Miscellaneous products                | 1   | 6      | 1       |          | 1        |          |          |       | 9     |
| Total                 |                                       | 174 | 606    | 309     | 258      | 84       | 34       | 18       | 36    | 1519  |

Source: Répertoire des entreprises manufacturières, INS, 2000.

The limited size of firms is particularly pronounced in wood products and diverse Industries (where firms fewer than 50 employees account for 66 per cent of all active enterprises), chemical Industries and Building Materials (65 per cent of total firms in this sector employ less than 50 employees), and food processing (64.5 per cent of total firms in this sector employ less than 50 employees).

Firms in textile, clothing, leather and shoes sector are relatively larger: companies with more than 100 employees account for 40.4 per cent of all companies (only 28.3 per cent for all manufacturing sectors). This sector is also characterized by a relatively weaker inequality in terms of firm size distribution and an important propensity to export, confirming *'that exporting tends to be concentrated in the larger production units in an industry has been found for several countries . . .'* Caves 1989.

Table 5.11 reports the CR4 and CR8 concentration ratios for the 20 manufacturing industries in 1997, 1999 and 2001 calculated on the basis of 1800 Tunisian manufacturing firms (1590 in 1997 and 1510 in 1999) from the Enterprises Repertory (National Institute of Statistic) which use the same classification scheme.

The average Tunisian manufacturing concentration ratio (CR4) is 56.2 per cent in 2001 and 57.2 per cent in 1997. Looking at the differences in the levels, one finds great variation across industries. The most concentrated industries are other transportation equipment (CR4 of 95.4 per cent in 2001), measuring and medical instruments (92.8 per cent), metallurgy (84.8 per cent) and radio and TV and other communications equipment (80.9 per cent).

### 5.3.5 Markup pricing and import competition

The main problem associated with the empirical measurement of the Lerner index and related measures arises from the fact that while prices can be measured, marginal costs are not directly observable. Therefore, indirect measures have to be developed.

Ben Jelili (2001) provides estimates of markup ratios as indicators of competitive pressure for 6 manufacturing industries in Tunisia over the 1975–99 period. The estimates are based on the method suggested by Roeger (1995), where intermediate inputs are considered as a third production factor. The author also tests whether the change in the competition law and policy that took place in Tunisia in 1991 have an effect on the level of the price–cost margins of firms.

Results indicate the presence of an aggregate plausible and moderate markup for the manufacturing sector over the sample period. The distinction between the estimation methods appears to make relatively little



Table 5.11 Share of value added accounted for by the 4 and 8 largest companies in Tunisian manufacturing industries

| NAT Code | Industry  | Share of value added (%) accounted for the |       |       |       |                         |       |      |      |
|----------|---|--|-------|-------|-------|-------------------------|-------|------|------|
|          |   | 4 largest companies CR4                    |       |       |       | 8 largest companies CR8 |       |      |      |
|          |   | 1997                                       | 1999  | 2001  | 1997  | 1999                    | 2001  | 1997 | 2001 |
| 14       | Extractive industries                           | 52.28                                      | 50.66 | 64.13 | 76.46 | 77.17                   | 85.55 |      |      |
| 15       | Food industries                                 | 29.34                                      | 26.44 | 30.52 | 46.74 | 39.54                   | 42.05 |      |      |
| 17       | Textile industries                              | 41.23                                      | 43.37 | 40.56 | 49.09 | 53.63                   | 52.42 |      |      |
| 18       | Clothing and lining industries                  | 9.86                                       | 11.01 | 12.81 | 16.48 | 16.42                   | 18.24 |      |      |
| 19       | Leather and footwear industries                 | 19.88                                      | 30.54 | 36.01 | 33.93 | 43.49                   | 46.47 |      |      |
| 20       | Wood products                                   | 69.06                                      | 54.86 | 66.34 | 86.59 | 77.38                   | 87.27 |      |      |
| 21       | Paper and cardboard industries                  | 74.34                                      | 70.32 | 66.54 | 89.02 | 88.67                   | 85.81 |      |      |
| 22       | Printing and related support activities         | 61.51                                      | 67.96 | 70.61 | 79.56 | 85.05                   | 83.24 |      |      |
| 24       | Chemical industries                             | 77.50                                      | 76.88 | 66.73 | 84.47 | 86.27                   | 76.70 |      |      |
| 25       | Plastics material and rubber Industries         | 61.70                                      | 54.72 | 58.00 | 71.80 | 66.21                   | 70.30 |      |      |
| 26       | Mineral non metallic products                   | 39.08                                      | 37.30 | 35.32 | 56.03 | 56.32                   | 60.31 |      |      |
| 27       | Metallurgy                                      | 91.62                                      | 83.75 | 84.84 | 95.73 | 95.60                   | 92.87 |      |      |
| 28       | Fabricated metal products                       | 26.88                                      | 38.53 | 34.43 | 45.88 | 53.54                   | 51.37 |      |      |
| 29       | Machinery and equipment                         | 66.94                                      | 64.10 | 54.10 | 81.33 | 81.15                   | 73.35 |      |      |
| 31       | Electrical equipment                            | 40.22                                      | 42.01 | 44.38 | 64.25 | 61.01                   | 61.92 |      |      |
| 32       | Radio and TV and other communications equipment | 89.80                                      | 75.79 | 80.89 | 99.21 | 97.46                   | 98.57 |      |      |
| 33       | Measuring and medical instruments               | 98.92                                      | 97.55 | 92.81 | 100   | 100                     | 100   |      |      |
| 34       | Motor vehicle manufacturing                     | 79.82                                      | 70.45 | 63.48 | 91.63 | 88.56                   | 82.67 |      |      |
| 35       | Other transportation equipment                  | 87.93                                      | 96.45 | 95.40 | 98.26 | 100                     | 100   |      |      |
| 36       | Wood products and miscellaneous manufacturing   | 26.00                                      | 27.57 | 26.51 | 43.22 | 46.58                   | 44.28 |      |      |

difference to the implied markup in Tunisian manufacturing. The aggregate markup defined over gross output is in the range of 20–21 per cent and the sectoral markups are in the range of 16–36 per cent. Relatively high markups are observed in industries such as chemicals (36 per cent) and miscellaneous manufactures (25 per cent). For the others sectors markups are around 17 per cent.

The level of markup seems to be related to the market structure of a particular industry. It is particularly higher in concentrated industries than in least concentrated ones.

Market power affects costs and therefore measured productivity growth in important ways. Indeed, for regulated industries, the assumptions of constant returns to scale and perfect competition are inappropriate. With the estimated markups and observed growth rates of labor, material and capital, the Solow residual is typically below the estimated growth in TFP for the period 1975–99 and all manufacturing industries except Miscellaneous manufactures.

In Ben Jelili (2006), two approaches have been taken to examine the effect of increased import competition on markups in industries. In one approach, the gross price–average cost margins – defined as the ratio of sales net of expenditure on labor and intermediate inputs over sales – is used as an indicator of the markup, and regressed on a set of explanatory

Table 5.12 Markup estimates, Tunisian manufacturing industries, Roeger specification with specific cross section coefficients

|   | Markup | Std error* | R <sup>2</sup> |
|---|--------|------------|----------------|
| Pooled least squares with fixed effect**          |        |            | 0.694094       |
| Food processing                                   | 1.193  | 0.036      |                |
| Construction materials and glass                  | 1.360  | 0.040      |                |
| Mechanical and electrical goods                   | 1.178  | 0.036      |                |
| Chemical and rubber                               | 1.176  | 0.028      |                |
| Textiles, clothing and leather goods              | 1.170  | 0.038      |                |
| Miscellaneous manufactures                        | 1.247  | 0.043      |                |
| GLS with cross section weights and fixed effect** |        |            | 0.744856       |
| Food processing                                   | 1.193  | 0.029      |                |
| Construction materials and glass                  | 1.360  | 0.068      |                |
| Mechanical and electrical goods                   | 1.178  | 0.026      |                |
| Chemical and rubber                               | 1.176  | 0.029      |                |
| Textiles, clothing and leather goods              | 1.170  | 0.030      |                |
| Miscellaneous manufactures                        | 1.247  | 0.025      |                |

Notes: \* White Heteroskedasticity-Consistent Standard Errors & Covariance. \*\* Coefficients reported concern the estimated margin (1-Markup)



variables including variables representing the level of import competition. In the other approach, the methodology developed by *Hall (1988)* is used. It involves regression of output growth rate on a share-weighted growth rate of inputs, the regression yielding the markup as the slope coefficient. Hall's approach is then extended to examine whether intensified international competition forces industries to price more competitively by examining six manufacturing sectors in Tunisia between 1972 and 1999.

The econometric evidence tends to support the hypothesis that increased exposure to import competition serves to lower the markup. It suggests that the direct effect of competition law on industry markup is not significant. Import liberalization not only has a more powerful and direct effect on competition, it also is a lower cost policy alternative, especially in the long run given no recurrent administrative enforcement and compliance costs.

In other words, import competition disciplines domestic firms in imperfectly competitive industries. However, the regression results obtained suggest that the direct effect of competition law on industry markup is not significant.

### **5.3.6 Survey on competitive environment of firms in the formal manufacturing sector in Tunisia: analysis of findings**

The survey on competitive environment of firms in the formal manufacturing sector had attracted effective participation of 40 companies. This had contributed to 40 per cent of the total response rate. The survey findings showed that 35 per cent of the respondents were from the export-oriented industries<sup>6</sup> and 65 per cent were from the domestic-oriented industries. The export-oriented industries covered the following sub-sectors namely canned fish, miscellaneous electrical equipment, base chemical products and textile spinning.

In terms of company size, 7.5 per cent of respondents comprised the small (less than 50 employees), 70 per cent medium (more than 50 and less than 200 employees) and 22.5 per cent large-sized industries (more than 200 employees).

Based on the survey, 85.7 per cent of the respondents in the export-oriented industries comprised the medium-sized industries and 14.3 per cent was large-sized industries.

In terms of legal status, 52.5 per cent of sample firms are limited liability companies (SARL), 32.5 per cent are corporations (SA) and 12.5 per cent are unincorporated. Only one firm have another legal status (cooperative or SNC).



In terms of firm position in the value chain of the industry, 86.5 per cent of the respondents are producers of final products, 8.1 per cent are suppliers of intermediate and final products, 2.7 per cent are suppliers of raw materials, intermediate and final products, and 2.7 per cent are suppliers of raw materials.

Firms are asked to identify the most important means of competition of their major product: 37.5 per cent of firms nominated *price competition and product quality as being* the most important mean of competition, 27.5 per cent nominated price-quality connection and 15 per cent cited price competition only.

Of the total number of respondents 51.3 per cent indicated the government controlled the price of their principal product. Asked about how did this policy affect the economic performance of their firm, 20 per cent of them declared that this policy have a strong positive effect, 55 per cent indicated a positive effect, 5 per cent affirmed a negative effect and 20 per cent stated that this policy have no effect on their performance.

A very large proportion of the firms (94.6 per cent) stated that their product required highly specialized labor in a percentage varying between 10 per cent and 90 per cent. But only 37.5 per cent of respondents declared that their product required only high and medium specialized labor.

Asked about the contribution of special machinery, software and hardware for their product, 42.5 per cent of respondents declared that contribution of both specialized inputs is important if not very important.

An important proportion (57.5 per cent) of the respondents provides an extra service to clients: 56.5 per cent of this service as technical advice and after sale services, 26.1 per cent as technical advice only and 17.4 per cent as after sale services only. All the respondents providing extra services consider such services at least important for the performance of their firm.

A large proportion of the firms (80 per cent) declared a positive fraction of their turnover for marketing activities and communication. The mean value of marketing activities expenses in proportion of turnover is 5.9 per cent. Asked about the contribution of advertising, marketing and public relation to the economic performance of the firm, 87.5 per cent of the respondents indicated at least an important contribution.

The dominant question in this section is whether respondents perceived major entry barriers in their industry. A significant percentage of the respondents (82.5 per cent) indicated the presence of entry barriers. Respondents were also asked to identify one or more types of entry barriers. Three factors were prominent; all of them concerned the limited access to essential resources: financial resources (57.6 per cent), qualified



Table 5.13 Respondent's perception of different vertical restraints

| Vertical restraints               | Frequency (%) | Explicit in a contract (%) | If not comply |                       |                       | Effect negatively on firm profit (%) |
|-----------------------------------|---------------|----------------------------|---------------|-----------------------|-----------------------|--------------------------------------|
|                                   |               |                            | Trial (%)     | Financial penalty (%) | Refusal to supply (%) | Suppression of payment facilities    |
| <i>Resale price maintenance</i>   | 32.5          | 87.5                       | 0.0           | 30.8                  | 69.2                  | 30.8                                 |
| Do not sell above a certain price | 0.0           | -                          | -             | -                     | -                     | -                                    |
| Do not sell below a certain price | 5.0           | -                          | -             | -                     | -                     | -                                    |
| Sell at a certain fixed price     | 27.5          | -                          | -             | -                     | -                     | -                                    |
| <i>Quantity forcing</i>           | 36.1          | 84.6                       | 7.7           | 30.8                  | 53.8                  | 46.2                                 |
| <i>Exclusive supply</i>           | 27.8          | 90.0                       | 10.0          | 30.0                  | 60.0                  | 80.0                                 |
| <i>Exclusive dealing</i>          | 34.3          | 100.0                      | 0.0           | 16.7                  | 66.7                  | 58.3                                 |
| <i>Tying arrangements</i>         | 36.1          | 76.9                       | 7.7           | 15.4                  | 61.5                  | 92.3                                 |
| <i>Long term contract</i>         | 38.9          | 100.0                      | 14.3          | 28.6                  | 57.1                  | 92.9                                 |
| Mean length (years)               | 4.62          | -                          | -             | -                     | -                     | -                                    |
| Median length (years)             | 3.5           | -                          | -             | -                     | -                     | -                                    |
| <i>Franchising fee</i>            | 30.6          | 90.9                       | 9.1           | 18.2                  | 45.5                  | 90.9                                 |
|                                   |               |                            |               |                       |                       | 9.1                                  |

human resources (54.6 per cent) and technological knowledge (51.5 per cent). Financial resources restrictions were raised particularly by respondents belonging to Food processing (71.4 per cent) and Miscellaneous industries (83.3 per cent), while limited access to technological knowledge was more cited by respondents from mechanical, metal and electrical (75 per cent) and chemical industries (80 per cent); limited access to qualified human resources was considered as the most dominant restriction in Textiles, clothing, leather and shoes industries (60 per cent).

Manufacturers and suppliers often do not trade their goods through a simple linear pricing mechanism in which the manufacturers pay the suppliers an amount proportional to the quantity bought. Instead they use a variety of complex contracts. In the literature of industrial economics, these contracts are often referred to as vertical restraints. Examples of vertical restraints include non linear pricing, quantity forcing, full-line forcing, resale price maintenance, territorial restrictions, exclusive dealing, partial exclusive dealing, tie-in sales, and refusal to deal, and so on. Which set of vertical restraints will be used in practice depends on the market environment.

The third section of the questionnaire addressed the issue of vertical restraints by submitting to respondents questions regarding seven types of vertical restraints: resale price maintenance, quantity forcing, exclusive supply, exclusive dealing, tying arrangements, long term contracts and franchising fee.

The results indicated that 10.8 per cent of respondents have a supplier in a position of monopoly in their market, 37.8 per cent indicated that they are only a few suppliers in their market and 51.4 per cent stated that numerous suppliers are present in their market. Table 5.13 summarizes firms perceptions of different vertical restraints in their markets, whether the contract is explicit or implicit and how the specific practice affects firms profits.

## 5.4 The state of competition policy in Tunisia

### 5.4.1 Competition authority in Tunisia

To back up institutional reforms and to encourage the emergence of a competitive environment, a series of global and sectoral instruments have been promulgated in Tunisia, the most significant of which is the Competition and Prices Act No. 91-64 of 29 July 1991, which has been amended by Act No. 93-83 of 26 July 1993, by Act No. 95-42 of 24 April 1995, by Act No. 99-41 of 10 May 1999 and more recently by Act No. 74-2003 of 11 November 2003. The Act, establishing the principles



of competition and prices policy, is divided into several parts and chapters on the various aspects of this policy.

The Competition Council (*Conseil de la Concurrence*), created pursuant to Act No. 95-42 of 24 April 1995, replaced the Competition Board (*Commission de la Concurrence*). The Council is empowered to perform two functions: a decision-making function and an advisory function.

The Council is empowered to perform two functions:

- *a decision-making function*: the Council is required to take cognizance in an adjudicatory capacity of applications pertaining to the anti-competitive practices stipulated in article 5. In this capacity it can impose financial penalties, order the closure of the firms, or grant injunctions ordering traders to cease the offending practices, and
- *an advisory function*: the Council may be requested by the Ministry of Trade to give an opinion on draft laws and regulations and on competition-related issues, as well as on planned concentrations.

Tunisian Competition Authority is an Independent-Administrative Authority. Its independence is ensured by articles 9 and 15 of the Competition Act.

To ensure the Council's autonomy, the legislators conferred on it a privileged status that makes it more of a jurisdictional authority than an administrative one. This aim is reflected in two features: Membership of the Council, half of which consists of judges; the referral of cases by a range of bodies, namely, the Ministry of Trade, firms, professional bodies, trade unions, registered consumer organizations and chambers of agriculture, commerce and industry.

The monitoring and observance of the provisions of the Competition and Prices Act are matters for both the administration and the judiciary. There are at least three bodies that may intervene under a procedure laid down in the Act. These are the DGCRC (Direction Générale de la Concurrence et de la Recherche Economique, Ministry of Trade) and the regional offices of the Ministry of Trade, the Competition Council, and the ordinary law courts.

The role and powers of each authority are clearly defined by the Act:

- *Price-control officials, police officers of the criminal investigation service and local authority officials* are authorized to enforce the Act. To this end, they have quite wide-ranging powers to carry out investigations and inquiries into all the subjects and practices (prices, competition) dealt with in the Act. However, only price-control inspectors are authorized

to prepare cases for trial and to report offences relating to anti-competitive practices (article 5);

- *The Competition Council*: the Council has the task of ruling on the anti-competitive practices specified in article 5, that is, agreements and abuses of dominant positions, which are referred to it by applicants, including the Ministry of Trade, firms, organizations and professional bodies. In addition to its decision-making and advisory functions, the Board is empowered to order inquiries and investigations, which are carried out under the authority of the chairperson by 'rapporteurs' appointed for this purpose;
- *The ordinary law courts*: with the exception of the anti-competitive practices that fall within the jurisdiction of the Competition Council, all offences under the Competition and Prices Act are assigned to the jurisdiction of the ordinary law courts. In addition, these courts are authorized to nullify any agreements prohibited under article 5. They are also competent to rule on redress for damage suffered as a result of the anti-competitive offences specified in article 5 in cases on which the Council has already passed judgement. Similarly, the Council may transmit to the public prosecutor any cases in which individuals have participated by indirect means in violations of the prohibitions in article 5.

The President, vice-presidents, magistrates and others members of the Council are proposed by the Minister of Trade and appointed by decree by the President of the Republic. The Competition Board has 13 members, including the President and two Vice-Presidents.

Backgrounds of members of Competition Board are as follows:

- Judiciary (magistrate): 7 members including the President and 2 vice-Presidents
- Public administration and business professions: 6 members

In the same vein, it is worth mentioning that the Law in Articles 12 (New), 13 (new) and 13A, makes for the appointment at the Council of respectively:

- A permanent secretary in charge mainly of the registration of petitions, of bookkeeping and filing, of drawing-up minutes of hearings and of deliberations and decisions of the Council and of any other mission entrusted to him/her by the Council's president.



- A general '*rapporteur*' and of recorders appointed by ordinance. The general '*rapporteur*' is responsible for coordination, follow-up, monitoring and supervision of the recorders' work.

The recorder's mission consists in initiating the investigation of petitions, which are entrusted to him/her by the President of the Council. In this respect, he/she checks the documents of the case and can require from the corporate and natural persons, under the seal of the President of the Council, all the additional elements necessary for the investigations.

He/she can also, in compliance with the regulations and after permission from the Council's president, make all on the spot enquiries, ask to be handed any document deemed necessary for the investigation of the case or still initiate under the seal of the president, all enquiries or appraisals which will be carried out by the agents in charge of the economic and technical control.

The President can also appoint contractual recorders chosen for their experience and competence in the areas of competition and consumption.

- Of a government commissioner representing the Minister in charge of trade having as a mission to defend the general interest in issues related to anticompetitive actions mentioned in Article 5 of the Law and to present the administration's comments to the Council.

When speaking of the competition policy in Tunisia, it is important to highlight the role played by the Minister in charge of trade who represents a key actor in the implementation of this policy and in its conduct. Among other things, the minister has as prerogatives to:

- Authorize concentration and mergers operations which can give rise to a dominant position (Article 7 new) and to concession and commercial representation contracts (Article 5 new) and the agreements securing technological and economic progress,
- Bring before the Council petitions on his own initiative or upon request from the government (Article 11 new),
- Take precautionary transition measures against excessive price increases justified by crises or calamities (Article 4) or measures having to ensure or reinstate the conditions for adequate competition (Article 7A ),
- Apply decisions taken by the Council (Article 35 new).

The General Competition and Economic Research Department was also assigned by the Decree no. 2966 of 20 December 2001 an important role

in the implementation of the competition policy, mainly through fulfilling the following missions:

- The enforcement of laws and measures relative to competition and prices and to the contribution to the spread of competition culture.
- The monitoring of concentration operations and the gathering of indicators in relation with the anticompetitive actions.
- The drawing up of petitions having to be filed before the Competition Council.

It is worth mentioning that this department can be entrusted by the Council's president to carry out queries or investigations regarding the cases referred to the Council (Article 11 New).

Appointments of the members of competition authority are:

- The President: 5 year term, renewable one time if he is not a magistrate.
- 2 vice-Presidents: 5 year term, renewable one time.
- 4 magistrates: 5 year term, renewable one time.
- 4 advisers: 4 year term, non renewable.
- 2 advisers: 6 year term, non renewable.

The budget for the competition authority is assigned as part the budget of a Ministry of Trade.

It is worth mentioning that this department can be entrusted by the Council's president to carry out queries or investigations regarding the cases referred to the Council (Article 11 New).

At this level of our developments, it is worth pointing out the interest shown by Tunisia to the ongoing adaptation of the competition policy to go hand in hand with the economy reform and restructuring process aimed at ensuring its liberalization and its integration as provided for, among others, by Tunisia's commitments within the framework of its partnership agreement with the European Union and its membership in WTO.

This adaptation, also obtained by the successive amendments of the regulatory framework, is mainly visible through the broadening, in 1995, of the scope of the law on competition in its Article 5 (New) to include the issues of concentration and mergers, not provided for in its July 1991 initial version, as well as the strengthening of the expertise and the human resources put at the disposal of the Council to bestow on it the required efficiency through equipping it, for instance, with a general rapporteur, with the possibility of resorting to contractual recorders and with a government commissioner that did not exist in the initial version of this law.



As far as the referral of the cases to the Council is concerned, Article 11 of the Law stipulates that petitions are brought before the Competition Council by the Minister in charge of commerce, the enterprises, the professional organizations, trade unions, organizations or legally incorporated associations of consumers, or by the chambers of agriculture or commerce and industry, even if, as we are going to see later, in practice, it is the Minister in charge of trade who has mainly been the party to refer the most cases to the Council. In this respect, it should be mentioned that these amendments have now led to the fact that the Council can also automatically take proceedings in a case, in the event of a withdrawal of the petition by the concerned parties should the investigations carried out in a case it has had to examine show anticompetitive actions on a market directly related to that of the one subject of the petition.

Given that the law provides for the need to prescribe the actions related to the anticompetitive practices, which are more than 3 years old, the Council, once the case is referred to it, will, as stipulated by Article 19 (New) of the Law, be faced with 2 courses of action:

- The first being the one where it considers that the facts put forward are outside its jurisdictions, as was the case with some of the petitions it has had to deal with or that they are not backed by evidence, in which case it will declare the petition non- admissible.
- The second case corresponds to that where it rules that the case is admissible in essence. Decisions rendered will then necessarily include:
  - The recognition of the reprehensible feature or not of the practices submitted to its investigation,
  - The condemnation, if need be, of the authors of such actions to those sanctions mentioned in Article 34 of the current Law.

It should also be pointed out that by virtue of Article 20 (New) of this Law, the Competition Council is also entitled, if need be, to address injunctions to the operators concerned by the anticompetitive actions so as to put an end to these practices within a given deadline or also to impose on them particular conditions in the conduct of their business.

It can order the temporary closure of an establishment or of the guilty establishments for a period not exceeding 3 months knowing that their reopening can occur only after they have put an end to the actions for which they had been condemned. It can also, if it deems it necessary, hand over the case to the prosecutor in order for a lawsuit to be initiated.

In the event of an excessive exploitation of a dominant position ensuing from a case of concentration and mergers of enterprises, the Competition

Council can suggest to the Minister in charge of trade to call upon, should the occasion arise, jointly with the Minister responsible for the concerned sector, through a counsel's decision, the enterprise or the enterprises at fault to modify, complete or terminate any agreement and any act by virtue of which the concentration and mergers giving rise to the violation was made notwithstanding the carrying out of the procedures mentioned in Articles 7 (New) and 8 (New).

#### 5.4.2 Summary of illegal practices under Competition Law

Article 5 of the law prohibits:

- all concerted actions and explicit or implicit agreements aiming at restricting competition, particularly when they restrict price determination by market forces, market access by other firms, restrict or control production, markets, investments or technical progress, share markets or sources of supplies;
- the abuse of dominant position on the local market or on an important share thereof: Actions of abuse concern refusal to sell, tied sales, resale price maintenance, discrimination among customers or discontinuation of commercial relations for no valid reason or because the partner refuses to yield to unjustified commercial conditions;
- the abuse of a dependent situation in which a supplier or a customer is held, with no choice left for an alternative outlet for his products or source of supply for his purchases.

Two amendments of the 1991 Act were introduced to deal explicitly with exclusive arrangements: the explicit prohibition of all exclusive agreements of concessions and commercial representation, enacted in 1995, and the relative easing of this prohibition by granting the minister in charge of trade the power to authorize such agreements on an exceptional basis, enacted in 1999. The latter amendment does not however spell out the conditions that need to be met in order to benefit from such exceptions.

The prohibition of exclusive agreements in the Tunisian legislation contrasts with the French or the EU legislation where a rule-of-reason is applied and where the competition authority weighs the likely anticompetitive against the pro-competitive effects of the intended contract.

The Tunisian law does not consider as anticompetitive behavior concerted actions or the abuse of a dominant position that generates technological or economic progress and where a fair share of this progress benefits to consumers. Authors of such practices need to provide evidence



for the likelihood of such effects. These practices, which have to be submitted to the approval of the minister of trade who issues his decision after seeking the competition council's opinion, may be exempted from prosecution even if they eliminate competition from a substantial portion of the market.

Merger control was introduced only through the 1995 amendment. Mergers fall under the heading of concentration, defined as any action that transfers the property of a firm allowing another firm or group of firms to exert an important influence on other firms. Any concentration action resulting in a dominant market position has to be submitted to the minister's approval. Two conditions are involved, a joint market share of the parties involved exceeding 30 per cent (issue of market definition), and total sales have to exceed a certain amount set by decree, currently standing at US\$ 3 million.

It is important to notice that the minister of trade has no legal obligation to seek the opinion of the competition council on merger cases. Indeed, consultations of the latter are only optional.

#### **5.4.3 Cases and consultations typology**

It is necessary to clarify that implementing competition law is the major activity of the competition authority. It is designed to ensure that businesses do not enter into agreements that prevent or distort competition, do not abuse their market power and do not engage in anticompetitive mergers. Competition law is directed at the autonomous behavior of businesses, not at behavior sanctioned by law. In fact a competition law by itself does not impede the adoption of anti-competitive legislation.

As a consequence, a key activity that competition authorities perform is to advocate competition, to seek, in other words, to influence competition policy. The focus of this enquiry is to identify the ingredients for acquiring a reputation as an independent enforcer of competition law and as a credible advocate for competition policy.

It should be first pointed out that the Council, since its creation, has always had two missions, namely a legal one and an advisory one to which we can also add an activity which, without however being part of its official missions, is likely to become more and more important in terms of impact on the competition policy, namely its activity of investigation and guidance.

As previously indicated, within the framework of its two missions, the Council can be resorted to by the Minister in charge of Commerce, by the economic enterprises, by the professional organizations or trade

unions, the incorporated organisations or groupings of consumers or by the chambers of agriculture or those of commerce and industry.

The number of legal cases presented to the Council during the period 1992–2002, as shown in Table 5.14, did not exceed 48, that is an average of 4.3 case per year and of 2.5 if we do not take into account the years 1993, 1999 and 2002, where the cases brought before the Council were respectively 9, 11 and 8 cases.

The Council explains, in its 2001 Report related to the evaluation of the first decade of its activity, the relatively modest resorting to its competences by the various parties, by the transition of the Tunisian economy and a competition culture not deeply taken in by the operators.

With respect to the opinions, their number was, over the same period, 62, that is an average of almost 5.6, higher than that recorded at the level of petitions, thus implying that the Council was resorted to more for its advisory mission than for its legal-related one.

As to the proceedings placed with the Council, it is to be said that the parties that have the most referred cases to the Council are respectively the economic enterprises which referred 39 cases to it, i.e. 81.2 per cent of the total, and the Minister in charge of trade 5 cases, i.e. 10.4 per cent. It should be mentioned that the years 2001 and 2002 are characterized by two cases initiated by the Council itself.

It is also important to observe that out of the 48 petitions that were presented to the Council during this period, the Council has considered that 26 among them did not fall within its scope because almost all of them correspond to what it considered as cases pertaining to unfair competition and not to anticompetitive actions and that 5 were not, in essence, admissible.

As to consultative activity, the opinions issued by the Council relative to draft legislation and regulatory literature and specifications accounted for more than half of all the opinions issued over the period; 8 decisions concerned the concentration and mergers case and one opinion is about exclusive agreements.

## **5.5 Conclusion**

Tunisian manufacturing sector plays an important role in the Tunisian economy. It contributes significantly to the Gross Domestic Product, employment, gross fixed capital formation, merchandise exports, and the use of advanced technologies. Accordingly, it has been called upon to play a key role in the transformation and development of the Tunisian economy since the launching of market oriented reforms. The main purpose



Table 5.14 Cases and consultations referred to competition council

| Years                 | 1992 | 1993 | 1994 | 1995 |      | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | Total |
|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
|                       |      |      |      | June | July |      |      |      |      |      |      |      |       |
| Cases                 | 1    | 9    | 4    | 3    | 1    | 2    | 1    | 1    | 11   | 4    | 3    | 8    | 48    |
| Consultation requests |      |      | 1    | 2    |      | 6    | 3    | 17   | 10   |      | 11   | 12   | 62    |

Source: Based on the Tunisian competition council's report, various issues.

Table 5.15 Distribution of cases filed according to the nature of the plaintiff

| Years                                   | 1992 | 1993 | 1994 | 1995 |      | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | Total |
|---|------|------|------|------|------|------|------|------|------|------|------|------|-------|
|   |      |      |      | June | July |      |      |      |      |      |      |      |       |
| Government (Minister of Trade)          |      |      | 1    |      |      | 1    |      | 1    | 2    |      |      |      | 5     |
| Firms                                   | 1    | 9    | 2    |      | 1    | 1    | 1    |      | 9    | 3    | 2    | 7    | 39    |
| Business associations or trade unions   |      |      | 1    |      |      |      |      |      |      | 1    |      |      | 2     |
| Consumer protection associations        |      |      |      |      |      |      |      |      |      |      |      |      | 0     |
| Farm, industrial or commercial chambers |      |      |      |      |      |      |      |      |      |      |      |      | 0     |
| Initiation by the council               |      |      |      |      |      |      |      |      |      |      | 1    | 1    | 2     |
| Total                                   | 1    | 9    | 4    | 3    | 1    | 2    | 1    | 1    | 11   | 4    | 3    | 8    | 48    |

Source: Based on the Tunisian competition council's report, various issues.



Table 5.16 Decisions issued by the council

|  | 1992      | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | Total |
|--|-----------|------|------|------|------|------|------|------|------|------|------|-------|
|  | June July |      |      |      |      |      |      |      |      |      |      |       |
| Decisions                                  |           |      | 4    | 1    |      | 8    | 5    | 7    | 6    | 4    | 8    | 43    |
| Withdrawal of the suit                     |           |      |      |      |      | 2    | 1    |      | 1    |      | 1    | 5     |
| Falling outside the Council's jurisdiction |           |      | 4    |      |      | 5    | 4    | 3    | 4    | 2    | 4    | 26    |
| No ground to continue the procedures       |           |      |      |      |      | 1    |      | 1    |      | 1    | 2    | 5     |
| Cases sanctioned for guilt                 |           |      |      | 1    |      |      |      | 3    | 1    | 1    | 1    | 7     |

Source: Based on the Tunisian competition council's report, various issues.

Table 5.17 Consultations of the competition council by nature

|                                   | 1992      | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | Total |
|-----------------------------------|-----------|------|------|------|------|------|------|------|------|------|------|-------|
|                                   | June July |      |      |      |      |      |      |      |      |      |      |       |
| Mergers                           |           |      |      |      |      |      | 2    | 3    | 1    | 1    | 1    | 8     |
| Exclusive and selective contracts |           |      |      |      |      |      |      |      | 1    |      |      | 1     |
| Draft legislation                 |           |      |      |      |      | 2    | 6    | 4    | 3    | 3    | 6    | 24    |
| Cahiers de Charge                 |           |      |      |      |      |      |      | 6    | 2    | 4    | 2    | 14    |
| Other issues                      |           |      |      |      |      | 4    | 4    | 3    | 1    | 4    | 3    | 19    |
| Total                             |           |      |      |      |      | 6    | 12   | 16   | 8    | 12   | 12   | 66    |

Source: Based on the Tunisian competition council's report, various issues.

Table 5.18 Distribution of cases filed by economic activity

|                                    | 1992      | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | Total |
|------------------------------------|-----------|------|------|------|------|------|------|------|------|------|------|-------|
|                                    | June July |      |      |      |      |      |      |      |      |      |      |       |
| Agro-Food Industry                 | 1         | 1    | 1    | 1    | 1    |      |      | 2    |      | 2    |      | 9     |
| Energy                             |           | 1    |      |      |      |      |      |      |      |      |      | 1     |
| Mechanical and electrical Industry |           | 2    | 2    | 2    |      |      |      |      | 2    |      | 1    | 9     |
| Chemicals                          |           | 1    |      |      | 1    |      |      |      |      |      |      | 2     |
| Textiles, apparel and leather      |           | 1    |      | 1    |      |      |      |      |      |      |      | 2     |
| Services                           |           | 3    | 1    |      |      | 1    | 1    | 5    | 1    | 1    | 3    | 16    |
| Handicrafts                        |           |      |      |      |      |      |      | 2    |      |      | 2    | 4     |
| Others manufacturing industry      |           |      |      |      |      |      |      | 1    | 1    |      |      | 2     |
| Distribution                       |           |      |      |      |      |      |      | 1    |      |      | 2    | 3     |
| Total                              | 1         | 9    | 4    | 4    | 2    | 1    | 1    | 11   | 4    | 3    | 8    | 48    |

Source: Based on the Tunisian competition council's report, various issues.



of this study is to investigate the degree of competition, to assess the performance of the manufacturing sector and to examine the relationship between this performance, the competition environment and competition policy in Tunisia during the period 1972–2002.

The received image of emerging markets as being basically characterised by pervasive and inefficient government controls on economic activity, lack of competition, immature and imperfect capital markets and poor corporate governance is far from being the whole picture. That is the broad message of this report on the basis of analysis and evidence from Tunisian manufacturing sector.

Indeed, despite shortcomings in corporate governance, Tunisia seems to have relatively vivacious product markets and display as much intensity of competition as that observed in advanced countries. The average Tunisian manufacturing concentration ratio (CR4) is without doubt relatively high (56.2 per cent in 2001), but the econometric investigation indicates the presence of an aggregate moderate markups in the range of 20–21 per cent, more in line with micro-economic evidence suggesting low profit margins in most manufacturing industries. This result is not surprising given the high import penetration observed in mainstream manufacturing sectors, although the econometric analysis doesn't give clear support to import-discipline hypothesis.

Empirical investigation of competition process dynamics in manufacturing sectors in Tunisia, using the common methodology of 'Persistency of Profitability,' for a sample subset of the 100 largest listed manufacturing corporations in terms of value added at factors costs, validates the absence of persistency in the profitability of competing firms. Those with above average profits in one period will not be expected to maintain the same level of profits in the subsequent period since they will be eroded by competitors.

The need for competition law in Tunisia was based primarily on two factors. First, the economic environment has been undergoing substantial transformation following the structural reforms initiated in 1986. Government controls on industry have been reduced, licensing and other restrictions on firms have been removed and the government has been moving out from non-essential commercial arenas. Lowering of barriers to external trade, generally, increased the scope of competition in the economy. Secondly, parallel to domestic reforms, the global economy has been undergoing wide ranging changes, resulting in far greater integration of markets and economies. An important element of the changing global environment was the signing of the WTO agreements. This need seems to be legitimate given the importance of respondents'



percentage (82.5 per cent) indicating the presence of entry (perceived) barriers.

One important issue that needs to be addressed concerns the presence of a sizeable informal sector. In this context, two related concerns can be made out: first of all, some see competition law as inflicting an extra unfair burden on the operators in the formal part of the economy while these operators are already competing with difficulty against the informal sector not subject to these rules. Secondly, there is a fear that competition law might be misused by the enforcers.

It might be worthwhile to research better why and how this informal sector tends to grow in the considered economy. It is quite possible that the informal sector develops not least due to the fact that there are too many restrictive regulations in the formal sector that prevent the entry of new comers. Another motive for the activity of the informal sector might be that firms with significant market power restrict their own output and impede entry to preserve their profits by means of anti-competitive practices. Consequently, there are compelling reasons for implementing a competition law and policy as a means of enlarging economic opportunities in the formal sector. It is also important to ensure that financial and capital markets, including the banking sector, operate along market principles.

## Notes

1. Most developing countries have, until recently, operated without a formal competition policy. Until 1990 only 16 developing countries had a formal competition policy. With encouragement and technical assistance from international financial institutions and the WTO, 50 countries have completed legislation for competition laws in the 1990s, and another 27 are in the process of doing so. It should, however, be borne in mind that it takes about 10 years for countries to acquire the necessary expertise and experience to implement such laws effectively.
2. The 12 Mediterranean Partners are Cyprus, Malta, Turkey, Morocco, Algeria, Tunisia, Egypt, Jordan, Israel, Lebanon, Syria, and West Bank and Gaza.
3. However, the impact of fluctuations of agricultural production on overall GDP remains relatively important particularly during years of agricultural contractions.
4. If  $Q$ ,  $X$  and  $M$  stand, respectively, for the sectoral output, exports and imports, the domestic demand  $D$  will be equal to  $D = Q - X + M$ , and the rate of import penetration equals  $M/D$ .
5. Rate of exposure to international competition is defined as  $\text{Export Ratio} + (1 - \text{Export Ratio}) \cdot \text{Import Penetration}$ ; The construction of this indicator rests on the idea that the exported share of production is 100% exposed and that the share sold on the domestic market is exposed in the same proportion as the penetration of the market.
6. Firms for which direct and indirect exports represent 50% or more of their turnover.



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